U.S. Patent Application No. 10/611,414
Amendment Dated February 14, 2008
In Response to Office Action of November 16, 2007

REMARKS

INTRODUCTION

Continued examination and favorable reconsideration are respectfully requested. Claims 1-17 and 19-85 remain pending in the application. Claims 16, 18, and 22-83 have been canceled without prejudice or disclaimer, thus claims 1-15, 17, 19-21, and 84-85 remain pending. By this Amendment, claims 1, 6-8, 11, and 12 have been amended. Support for these amendments can be found throughout the specification and figures, for example, at paragraphs [0028]-[0032], [0035], [0045], [0079], and [0120] of the originally filed specification.

Applicants have duly considered the rejections of the claims in the Office Action and provide the foregoing amendments and following remarks. Entry of this amendment, reconsideration and prompt favorable action are respectfully requested.

Rejection of Claims Under 35 U.S.C. §101

The Office Action at page 2, rejects claims 1-17, 19-21, and 84-85, as allegedly not producing a tangible result. For the reasons set forth herein, Applicants respectfully traverse this rejection. Reconsideration and withdrawal of the rejection are respectfully requested.

Claim 1 recites "outputting the allelic classification to **a user or a display**." Emphasis added. The phrases objected to by the Examiner have been deleted from claim 1. Reconsideration and withdrawal of the rejection are respectfully requested.

Rejection of Claims Under 35 U.S.C. §112, Second Paragraph

The Office Action, at page 5, rejects claims 1-17, 19-21, and 84-85 under 35 USC

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§112, second paragraph, as being indefinite for failing to particularly point out and distinctly

claim the subject matter which applicant regards as the invention. For the reasons set forth

herein, Applicants respectfully traverse this rejection.

At page 5 of the Office Action, the Examiner states, "[claims] 1 and 5 contains (*sic*)

the wording 'selected from neither the first allele nor the second allele, the first allele alone,

the second allele alone, and both the first allele and the second allele'. . . [and this wording]

has been deemed vague and indefinite." By the present amendment, claim 1 no longer

recites this wording, and therefore the rejection has been overcome. Reconsideration and

withdrawal of the rejection are respectfully requested. Claims 2-4, 6-17, 19-21, and 84-85

all depend from claim 1. In view of the foregoing it is respectfully submitted that these

claims no longer depend from a rejected base claim. Reconsideration and withdrawal of the

rejection is respectfully requested.

Rejection of Claims Under 35 U.S.C. §102(e)

The Office Action, at page 7, rejects claims 1, 5-9, 10-11, and 16 as being

anticipated by U.S. Patent No. 6,703,228 B1 to Landers et al. For the reasons set forth

herein, Applicants respectfully traverse this rejection.

Amended Claim 1 recites a method for allelic classification comprising: acquiring

intensity information for a plurality of samples, forming a plurality of data sets from the

intensity information, grouping the data sets into one or more data clusters, defining bounds

for each of the one or more data clusters, generating a likelihood model, and applying the

likelihood model to the intensity information to identify allelic classifications, and

outputting the allelic classification of each of the plurality of samples to a user or a display.

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At page 8 of the Office Action, the Examiner asserts column 3 of Landers et al. as enabling one skilled in the art to identify clusters of data. Applicants respectfully disagree with this assertion. There is nothing in column 3 of Landers et al that would teach one skilled in the art to group allelic data sets into data clusters, define bounds for each data cluster, create a likelihood model that determines characteristics of each group, and then apply the likelihood model to identify in which cluster a set of data should be grouped. Landers et al. makes no mention whatsoever about "clusters" or "data clusters" anywhere within its specification, or about defining bounds of a cluster.

The only mention of "intensity" suggested in Landers et al. occurs at column 30, lines 51-67. As stated in Landers et al., "[one] or more of the presence, absence, and intensity of signal corresponding to a label is used to assess the presence or absence of an SNP corresponding to the label in the RCG." The description of Landers et al describes using intensity components **to assess the presence or absence of an SNP**. The claimed invention, distinguishes over Landers et al. at least because the claimed invention comprises a method for furthering the accuracy of the allelic classification of a plurality of samples, not for simply determining whether an SNP exists. The method of claim 1 comprises grouping intensity information from a plurality of samples into one or more data clusters, defining bounds for each data cluster, evaluating the data clusters to generate a likelihood model that further predicts or improves the accuracy of the grouping, and then applying that likelihood model to the plurality of samples. Landers et al. fails to teach or describe any of these features. In view of this, the rejection based on Landers et al. should be withdrawn. Reconsideration and withdrawal of the rejection are respectfully requested.

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Claims 5-9 and 10-11 all depend from claim 1. Claim 16 has been canceled without

prejudice or disclaimer. In view of the foregoing, it is respectfully submitted that these

claims no longer depend from a rejected base claim. Reconsideration and withdrawal of the
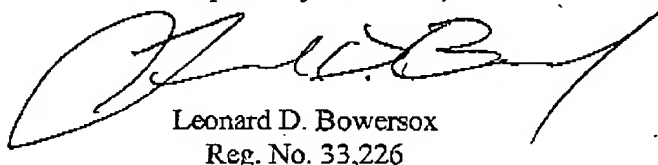
rejection are respectfully requested.

CONCLUSION

In view of the foregoing remarks, Applicants respectfully request favorable

reconsideration of the present application and a timely allowance of the pending claims.

Should the Examiner deem that any further action by Applicants or Applicants'

undersigned representative is desirable and/or necessary, the Examiner is invited to

telephone the undersigned at the number set forth below.

If there are any other fees due in connection with the filing of this response, please

charge the fees to deposit Account No. 50-0925. If a fee is required for an extension of time

under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and should

also be charged to said Deposit Account.

Respectfully submitted,

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